

What is claimed is:

1. A universal serial bus device to be initialized as a state enabling a communication with a host, the host storing a real descriptor and a descriptor
5 recognizing program, comprising:

an interface storing a predetermined basic descriptor, the interface primarily activating an initialization signal and transferring the basic descriptor to the host to perform a primary initialization, the interface downloading the real descriptor in response to a download command generated from the host, and secondarily
10 activating the initialization signal and transferring the real descriptor to the host to perform a secondary initialization;

at least one signal line for guiding the basic descriptor, the real descriptor and the download command; and

a voltage regulator pulling up the signal line while the initialization signal is
15 activated.

2. The universal serial bus device in accordance with claim 1, wherein the interface comprises:

a memory storing the basic descriptor;

20 a register for storing the real descriptor generated from the host;

a command analyzing portion receiving the real descriptor and the download command from the host and generating a download start signal; and

a descriptor read/write portion transferring the basic descriptor stored in the memory to the host, the descriptor read/write portion transferring the real descriptor
25 outputted from the command analyzing portion to the register in response to the download start signal and generating a download completion signal and providing

the real descriptor stored in the register to the host.

3. The universal serial bus device in accordance with claim 2, wherein the interface further comprises:

- 5 a timer activating a control signal for controlling the activation of the initialization signal in response to the download completion signal; and
- an initialization signal generator activating the initialization signal in response to the control signal.

- 10 4. The universal serial bus device in accordance with claim 3, wherein the control signal is primarily activated to terminate a primary activation of the initialization signal and is secondarily activated to generate a secondary activation of the initialization signal.

- 15 5. The universal serial bus device in accordance with claim 2, wherein the memory is a read only memory (ROM).

6. The universal serial bus device in accordance with claim 1, wherein the voltage regulator comprises:

- 20 a transistor connected to a predetermined terminal voltage; and
- a resistor being disposed between the transistor and the signal line.

7. The universal serial bus device in accordance with claim 3, wherein the voltage regulator comprises:

- 25 a transistor connected to a predetermined terminal voltage; and
- a resistor being disposed between the transistor and the signal line.

8. The universal serial bus device in accordance with claim 7, wherein the transistor is controlled by the initialization signal generator.

9. A universal serial bus device to be initialized as a state enabling a communication with a host, the host storing a real descriptor and a descriptor recognizing program, comprising:

at least one signal line, connected to the host, for guiding data and commands; and

an interface storing a predetermined basic descriptor, the interface primarily activating an initialization signal and transferring the basic descriptor to the host to perform a primary initialization, the interface downloading the real descriptor in response to a download command generated from the host, and secondarily activating the initialization signal and transferring the real descriptor to the host to perform a secondary initialization, the interface including a voltage regulator pulling up the signal line while the initialization signal is activated.

10. The universal serial bus device in accordance with claim 9, wherein the interface further includes:

a memory storing the basic descriptor;

a register for storing the real descriptor generated from the host;

a command analyzing portion receiving the real descriptor and the download command from the host and generating a download start signal; and

a descriptor read/write portion transferring the basic descriptor stored in the memory to the host, the descriptor read/write portion transferring the real descriptor outputted from the command analyzing portion to the register in response to the download start signal and generating a download completion signal and providing

the real descriptor stored in the register to the host.

11. The universal serial bus device in accordance with claim 10, wherein the interface further comprises:

5 a timer activating a control signal for controlling the activation of the initialization signal in response to the download completion signal; and

 an initialization signal generator activating the initialization signal in response to the control signal.

10 12. The universal serial bus device in accordance with claim 11, wherein the control signal is primarily activated to terminate a primary activation of the initialization signal and is secondarily activated to generate a secondary activation of the initialization signal.

15 13. The universal serial bus device in accordance with claim 10, wherein the memory is a read only memory (ROM).

14. The universal serial bus device in accordance with claim 9, wherein the voltage regulator comprises:

20 a transistor connected to a predetermined terminal voltage; and
 a resistor being disposed between the transistor and the signal line.

15. The universal serial bus device in accordance with claim 11, wherein the voltage regulator comprises:

25 a transistor connected to a predetermined terminal voltage; and
 a resistor being disposed between the transistor and the signal line.

16. The universal serial bus device in accordance with claim 15, wherein the transistor is controlled by the initialization signal generator.

17. A method for initializing a universal serial bus device connected to a host
5 that stores a real descriptor and a descriptor recognizing program, comprising the steps of:

(a) performing a primary initialization with a basic descriptor stored in a memory;

(b) receiving the real descriptor and a download command generated from
10 the host; and

(c) performing a secondary initialization with the real descriptor.

18. The method in accordance with claim 17, wherein the step (a) comprises the sub-step of (a1) primarily activating an initialization signal to control a signal line
15 to have a terminal voltage,

19. The method in accordance with claim 18, wherein the step (c) comprises the sub-steps of (c1) terminating the primary activation of the initialization signal so that the host ignores the basic descriptor; and (c2) secondarily activating the
20 initialization signal to control the signal line to have the terminal voltage.